REMARKS

Claims 1-18 were presented for examination. Claims 1-18 were rejected. Claims 1, 8 and 17 are hereby amended. Applicant disagrees with the Examiner's rejection for at least the following reasons. Reconsideration of this application, and allowance of all pending claims are hereby respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 1-18 were rejected under 35 U.S.C. § 103 as being unpatentable over Wadsworth, Jr. (*Handbook of statistical methods for engineers and scientists*, McGraw-Hill, 1990) in view of Andersen (U.S. Patent No. 6,401,054 B1). This rejection is respectfully traversed. Applicant respectfully requests reconsideration and allowance of the claims in view of the following arguments and amendments. For at least the reasons stated below, a combination of Wadsworth, Jr. and Andersen, even if proper, does not disclose the claimed invention.

The present invention as recited in claim 1, for example, relates to computing a statistical value related to a measured process parameter during ongoing operation of the process. A predetermined number of samples are taken of the process parameter. A running sum of the sample values and a running sum of squares of the sample values are accumulated during the sampling. The accumulated sum and sum of squares are used to determine the statistical value, but only at the end of the sampling. One advantage of accumulating running sums is in reducing the processing or memory requirements associated with storing all of the sample values.

In contrast, Andersen discloses a statistical analysis algorithm that tracks each sample value and compares the sample value to a running standard deviation. When a sample falls outside of an acceptable range, the algorithm generates an event that can be received by a central monitoring device. As the Examiner correctly conceded on page 3, paragraph 3 of the Office

Action, Andersen does not disclose or suggest "accumulating a running sum of the n samples and accumulating a running sum of squares of the n samples, without storing all n samples," as recited in claim 1.

To overcome the deficiencies of Andersen, however, the Office Action relies on Wadsworth, Jr. The Examiner particularly references equations 2.8, 2.10 and 2.11 as supporting the disclosure of the deficient features. In contrast to the Applicant's invention, as claimed, however, Wadsworth, Jr. merely discloses conventional equations for computing central tendency and dispersion for a set of stored data values. These conventional equations do not teach or suggest the claimed features of accumulating running sums during the ongoing operating of a process. Rather, Wadsworth, Jr. sets forth the conventional methodology for analyzing a set of data values once they have been fully accumulated. No intermediate calculation is disclosed or contemplated in the Wadsworth, Jr. reference cited by the Examiner.

Because it was conceded that Andersen does not disclose the claimed feature of "accumulating a running sum of the n samples and accumulating a running sum of squares of the n samples, *without storing all n samples*", the Office Action apparently relies on Wadsworth, Jr. to disclose the feature. Yet the Office Action does not positively assert that Wadsworth, Jr. discloses or suggests this claimed feature nor points out where this feature can be found or suggested in Wadsworth, Jr. Rather, in Wadsworth, Jr., running sums need not be accumulated during ongoing operation because it is presumed that each of the samples are stored.

Regarding independent claims 8 and 17, even if the proposed combination of references were proper, the references do not disclose or suggest all of the required claim elements. For example, claims 8 and 17 recite features for performing calculations without retaining all of the sample values and for computing the statistical measure of performance upon completion of the

sampling. As described above, Andersen does not disclose or suggest accumulating running sums, without storing all n samples, and Wadsworth, Jr. does not overcome this deficiency.

Dependent claims 2-7, 9-16 and 18 should also be considered allowable over the proposed combination. The dependent claims include additional patentable recitations that are not disclosed in the proposed combination of references. Reconsideration and withdrawal of the rejection of claims under 35 U.S.C. §103(a) are respectfully requested.

Conclusion

Accordingly, it is believed that all pending claims are now in condition for allowance. Applicant therefore respectfully requests an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicant's representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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